in general seems to warrant the theory that the value of so-called antitoxic serums lies in the fact that they contain in solution one or more soluble ferments which are able to digest and destroy in the animal body the toxic products that the germ forms. These ferments are probably secreted by the leucocytes or other cells acting under the stimulation of the toxins first elaborated by the germ of the disease. In the case of a germ like diphtheria, probably the secretions of only one ferment will be stimulated, while in the case of tuberculosis, where a larger number of toxic substances are produced, it is probable that several ferments are needed to counteract their effect. Whether further application of the serum treatment in its present form will continue to prove beneficial, and give better results, or whether this must be materially modified, cannot at present be determined. The results obtained certainly show that the efforts are properly directed. Perhaps it may be possible to prepare antitoxins by artificial means outside of the animal body; but it seems, from present results, at least, that the active live cell and the intervention of the laboratory of the animal body are necessary adjuncts in the production of these curative substances.—*The National Medical Review*, 1898, No. 10, p. 281.

Tuberculin R.—DR. W. KERNIG has made use of this substance in nine instances of pulmonary tuberculosis. He finds that it gives rise to the same symptoms as the first tuberculin. So far as can be determined, it contains the same poisonous substances, and for patients it is a dangerous remedy. The concentration is the greatest possible, so that in lupus there was ocular demonstration of its vigorous action. The study of the clinical histories is not favorable to its continued use.—*St. Petersburger medicinische Wochenschrift*, 1898, No. 7, S. 53.

MEDICINE.

UNDER THE CHARGE OF

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Myelin in Sputum.—A. SCHMIDT (*Berliner klin. Wochenschrift*, 1898, No. 4) shows that the so-called myelin drops in sputum occur even in the morning expectoration of persons in perfect health, but not in the secretions of the nose and throat. Purulent sputum is free from it, as is also the sputum from cavities, and in pneumonia and abscess. Along with myelin drops there are also coagulated cells, like those first described by Nothnagel in certain diarrhœal discharges. Schmidt opposes the oft-quoted view of Panizza, that myelin is clinically nearly related to mucus. Experiments made by him and his pupils have shown that it is identical with protagon, found originally in medullary nerve matter. He thinks the myelin is formed in the secretions from protagon excreted from the lung in some other state.

Diuresis, instead of Critical Sweat, in Pneumonia.—REUSNER was led to this by noting the good effects of certain diuretics given as a last resort to patients apparently dying in pneumonia. As severe sweating is exhausting, especially to the heart, efforts to lessen it in the crisis of pneumonia seemed to him rational. Accordingly he gave sodium and caffein salicylate (grm. 0.15) and camphor (grm. 0.1) every two hours. Excretion of urine was much increased. Sweating occurred, though rarely. The treatment was used only in severe cases. The author suggests some explanations of the cause of the sweating, without coming to a conclusion.—*St. Petersburger med. Wochenschrift*, 1898, No. 2.

Muscle-callus.—STRAUSS (*Berliner klin. Wochenschrift*, 1898, Nos. 5 and 6) distinguishes three groups of cases. 1. Those with fusing together of the muscles with each other and with neighboring tissues, usually in the leg or thigh, without discoverable cause, and acute or chronic. 2. Cases in which a single muscle is involved in its whole extent. 3. Cases with solitary or multiple nodes in a single muscle, the muscle-callus *par excellence.* Mixed forms are not rare, but the cases in the first group are, perhaps, essentially different from the others. Strauss has seen eight cases himself, and confirmed the diagnosis by examination of excised tissue in two. All the patients were otherwise well, and had no history of internal disease that could be brought in relation with the muscular change. Most of the patients were of middle age. They complained of tearing pains in the affected extremities, and ascribed these to "cold." Trauma and syphilis were denied by all, as also excess in alcohol. All were disabled by the pain or by weakness of the affected part, and had been treated for sciatica or rheumatism. Examination showed diminished active mobility, with no hinderance to passive motion, but the latter was followed by pain and contraction of certain groups of muscles. There were no painful spots over the nerves. The electric excitability was not altered. Palpation of the affected muscles revealed circumscribed, hard, inelastic, movable masses, of varying sensibility, usually solitary, at times multiple. The masses had the shape of dates or nuts. Sometimes they creaked on pressure, and at times pressure caused eccentric or radiating pain. The peculiar hardness and other physical characteristics of muscle-callus which have been mentioned by many writers require for their detection considerable skill in palpation and an accurate knowledge of the consistence of normal muscles. The examination is best made by having the patient relax the muscles, and by trying to roll the suspected part between the thumb and fingers, or to press it against the underlying bone. Contractions of the muscles are readily brought on by too energetic palpation. Here the elasticity, the absence of a nodular surface, and the variable position of the tumor at different times serve to prevent error. Varices in the muscles, not uncommon in the legs, and sometimes associated with sciatica and muscular cramps, not infrequently cause confusion, especially when the varices are thrombosed. The presence of superficial varices should lead to the correct diagnosis. Gum-